Marshall
AMPLIFICATION
JOE SATRIANI
JVM410HJS SIGNATURE HEAD
OWNERS MANUAL
Marshall
410HJS
Joe Satriani Edition
JVM
100W Valve Amplifier

ENGLISH

From

The Guv'nor' Jim Marshall*

I would like to personally congratulate you on choosing the all-valve, 100 Watt, JVM410HJS Joe Satriani Signature amplifier. Joe worked very closely with my top R&D chap, Santiago Alvarez, on this amp for a number of years and the result of this collaboration is fantastic. As is the fact that Joe has quite literally road-tested the prototypes on tour all over the world and also in the recording studio.

I've followed Joe's career ever since his self-financed debut album, *Not of This Earth*, came out in the mid '80s. I'm delighted that he recorded many of his classic instrumentals using Marshall amps. In fact, some of the sounds the JVM410HJS's modes are capable of pay homage to many of those great old amps he relied on – from JMPs to the 30th Anniversary 6100 that he used for so many years.

Like Joe, I'm extremely proud of the amp that he and Santiago have developed. I'd like to take this opportunity to wish you every success with your new Marshall JVM410HJS. I'm sure it will bring you countless hours of playing pleasure.

Welcome to the Marshall family.

Yours Sincerely,

Jim Marshall

Jim Marshall

*Footnote: this intro was the final one Jim worked on before making Heaven a much louder place! Here's what Joe had to say on hearing of Jim's passing:

I'M DEEPLY SADDENED ON THE NEWS OF JIM MARSHALL'S PASSING. HE CREATED THE TONE WE ALL CHERISH IN ROCK; BIG, BOLD, BEAUTIFUL AND IN YOUR FACE. WITH EVERY POWER CHORD, SOARING MELODY AND SCREAMING LEAD WE WILL CONTINUE TO SALUTE HIS LEGACY.

R.I.P.

LORD OF LOUD - JIM MARSHALL

ENGLISH

First and foremost, thanks for getting my new Marshall Signature Amp - it's something I'm very proud of. Having a Signature Marshall is an elite fraternity and I feel honored to be part of it. When I look across at the names of the guys who've got and have had signature models it's very impressive to say the least. They're all players I greatly respect and listen to. The amps that bear their names are very cool and I like the fact that they're specific, they do something outrageous and when you plug in to one you get really inspired. So, for all those reasons it's really an honor to be part of the group.

As you may know I'm not new to Marshall - we have quite a history together. Back in 1988, when I started touring for "Surfing With The Alien" I was taking out the old Marshall heads I'd recorded with and then somewhere along the line the guys at Marshall started lending me gear in different territories which was really nice of them because we were touring with such a shoe-string budget! I wound up playing though a whole lot of different ones and eventually, by the end of that tour, I'd realized that using a distortion box into a clean channel was really helping me do the show. At the end of the tour I went back into the studio to start recording what would become "The Extremist" album, and Marshall had sent over this new head - the 30th Anniversary 6100. The first thing I did was go in to the clean channel and seeing how my box sounded and it was like: Wow - that's amazing.. And that was really the beginning of me just depending on that head. I've got 5 of them & I even have a full stack with the polished brass chassis and logo that's very cool.

I played "hooky" from the brand for while but when Chickenfoot formed a few years ago, I came back to Marshall because I was looking for a bigger, more organic, more complete sound. The great thing about a distortion box into a clean channel is that if you're playing melodies and solos back-to-back, when you put it in-front of everyone else in the band, it creates the illusion that it's the biggest, loudest thing. But, if you're playing through a rig like that and you've got a very dynamic drummer like Chad Smith, a bassist like Michael Anthony and a vocal powerhouse like Sammy Hagar, you quickly find out that your sound really isn't that big and dynamic at all - it's smaller!

So, before the first proper Chickenfoot tour, we did a couple of warm-up runs in small clubs. Sammy (Hagar) was playing through his old rig and I was playing through mine and we both realized that our amps weren't up to it. So we contacted Marshall about helping us out for the subsequent "real" tour as neither of us had confidence in our rigs. Marshall set us up with some JVM and some Vintage Modern heads and we just loved them. They literally transformed the sound of the band. I was using a JVM and the end of that touring cycle I'd realized exactly what it was I was looking to get out of the amp. Then came the offer to work with Marshall on a signature head...

I was not only flattered by this gesture but also very excited because I had real, practical experience with the JVM and I had some things I wanted to change about it - specifically, make an already great amp even bigger, bolder, more punchy and more dynamic. To me the JVM4104's four channels were amazing but what was even more mind-blowing was that it had three switchable modes per channel. So it wasn't merely a 4 channel amp, it was 4 by 3. It was fascinating just to sit there and play through it. I felt that the designer, Santiago Alvarez, had really made a huge step forward in amplifier design by being able to pack so much into a head while making it so elegantly designed and functional. This amp gets you in and out of all the different eras of rock music, no questions asked.

So that's how myself and Santiago started working on the JVM4104JS. I think you can hear a good example of how Chickenfoot's sound blossomed as a result of the JVM on the "Get Your Buzz On" live DVD [filmed on one night in 2009]. It's a very fat, rich tone which we've since taken several steps further to make it even more of an organic rock and roll sound - which is the hallmark of my signature amp.

Thanks to a really long and fruitful R&D period, I've been able to record, rehearse and play live with all the prototypes while Santiago and I fine tuned the amp...not just with Chickenfoot but on my solo stuff too. I've really put all the prototypes through their paces in "the real world" - well, in "my real world" anyway. To my mind, the original JVM4104 has a sizeable chunk of Marshall History encapsulated within its 12 modes. I feel that Santiago and myself have capitalized and expanded upon that firm sonic foundation and, as a result, the JVM4104JS contains a lot of classic Marshall tones as well as a few fresh ones that people will regard as new classics.

I sincerely hope JVM4104JS gives you as much playing pleasure as it gives me. I can honestly say that I've never had this much fun or derived this much inspiration from an amp before. Enjoy!

Joe Satriani

OVERVIEW

Presenting the 4 channel, 100 Watt, all-valve JVM410HJS Joe Satriani Signature head. Its 4 channels boast 3 modes each, giving you a total of 12 modes and no fewer than nine* unique gain structures to choose from. Even though its front panel contains a total of 28 control knobs and 9 LED switches, the JVM410HJS is simple to understand and operate thanks to its extremely logical front and rear panel layouts.

I. CHANNELS, MODES & MEMORY
The front panel contains dedicated sets of controls for each of its 4 channels - CLEAN, CRUNCH, OD1 & OD2 - plus MASTER and GATE THRESHOLD sections. Each channel contains the familiar controls, Volume, Bass, Middle, Treble and Gain. The GATE THRESHOLD section consists of 4 Gate Threshold controls, one for each channel while the MASTER section is comprised of 2 footcontrollerable Master Volumes, plus master RESONANCE and PRESENCE controls that work universally on all 4 channels.

Each of the 4 channels has 3 switchable modes. These are selected by the MODE switch dedicated to each channel. To select a channel press its respective MODE switch (or step on the relevant button on the supplied 6-way footcontroller). To scroll through the selected channel's 3 modes keep pressing the said button and the colour of the LED in the switch will change from green to orange to red and then back to green. Doing this steps-up the gain level each time (red being the highest and green the lowest for each channel) and changes the channel's tonal voicing to suit.

When you leave and then reselect a channel, it will automatically recall the last active mode as all 4 channels remember the last mode they were in until a change is made. For instance, if you select the Crunch channel's orange mode and then go to the Clean channel, when you reselect the Crunch channel it will still be orange.

In addition to channel and Mode selection, other features switchable via the front panel and the supplied 6-way footcontroller are Noise Gate, Master Volume selection (1 or 2), and Series effects loop (on/off). All 3 of these options are also remembered by each Mode.

To sum up, each of the JVM's 12 Modes will remember it's most recent Noise Gate, FX loop and Master Volume selection. Additionally mode setups can also be saved and recalled to one of 128 locations via MIDI.

II. FOOTCONTROLLER (UK PATENT GB 2442765)
The JVM410HJS comes supplied with a 6-way programmable footcontroller which can be connected to the amp via any standard guitar cable.

NB: Please note that the supplied footcontroller lead is unscreened and not suitable for guitar.

The 6-button footcontroller features 7 LEDS marked CLEAN/MID-SHIFT, CRUNCH, OD1, OD2, MASTER, GATE & FX. The LEDs for each of the 4 channels are 3-coloured Green, Orange and Red, visually telling you which channel and mode is selected alongside the status of Master, Noise Gate and FX loop. The CLEAN LED also doubles as a visual indicator for when the MID-SHIFT option on the OD1 and OD2 channels is activated.

The footcontroller enables you to assign any of its 6 switches to instantly recall any front panel function (Switch Store Mode) or complete channel setup (Preset Store Mode) in any order and combination. For example, you could program it so that:

SWITCH STORE MODE
Any footcontroller is assigned to act as any one of your amp's front panel switches: Channel/Mode; Gate on/off; Master Volume 1/2 and FX Loop on/off.

If a switch is assigned to select a particular channel once is has been activated, it can be used to scroll through the three modes, just like its respective front panel switch.

PRESET STORE MODE
Each switch can be programmed to instantly call up a combination of JVM button options to form a Preset. For example, you could program it so that:

Footcontroller #1 = Crunch channel, green mode with Master Volume '1', Gate 'on' and FX loop 'off'.
Footcontroller #2 = OD2 channel, red mode with Mid-Shift "on", Master Volume "2", Noise Gate "off" and FX Loop "on."

All the settings are stored within your footcontroller; this means it can be plugged into any JVM410HJS amplifier and all your footcontroller settings can be instantly recalled. Details on how to program your footcontroller can be found later in this manual.

III. POWER AMP
The power amp stage of the 100 Watt JVM410HJS is based on the same as the one found in the JCM800 2203 and 1959 Superlead amplifiers, responsible for the legendary Marshall roar it has been adjusted to suit the variety of tones found in the JVM. This section features Presence and Resonance control to help shape the overall tone of your JVM410HJS amplifier.

Your JVM is also equipped with a Silent Recording mode. When the STANDBY switch is OFF the power amplifier section is disabled but the rest of the amplifier remains fully operational.

IV. NOISE GATE
Your new JVM410HJS is equipped with an ultra-fast, studio-quality Noise Gate. Instead of abruptly cutting the sound once the threshold is reached like some noise reduction units, this Gate progressively attenuates the signal following its dynamics. The individual Gate Threshold control for each of the amp's four channels is specially tailored for it and allows very slow decay times for slowly moving guitar signals thus maintaining the natural sustain, plus very fast decays for staccato rhythms and short pauses.

> *One of the most instantly noticeable differences between the JVM410H and the JVM410HJS is that I've replaced the original Reverb section with independent Noise Gates for each channel. Reverb is a very personal thing and I've found that for me a built-in reverb never works as well in a professional setting as one you can put in an FX loop. I also felt that the amp was missing something that's extremely important for recording, especially as a lot of recording is done live nowadays. That missing something? A professional quality Noise Gate - because guitar players need their gain up but they also need to be quiet!*
>
> *So, we swapped out the four Reverb controls on the original JVM410H front panel for four independent Noise Gates which are just fantastic. Boy do they make my life easy. I don't have to do a bunch of pedal-board tap dancing turning things off and then back on again, in-between phrases. It's also a great way of keeping my stage noise down to a minimum & I also think it's less distracting for the audience not to be overwhelmed with hiss and noise in those supposed" holes of silence!" Plus, of course, if you want you can switch them off and go old school, which is great and I'll do that on occasions. Sometimes though, I really just want to be able to blast with a lot of gain, but also need it to be completely quiet when I'm not playing, and for that the four gates are just fantastic.*

*Note: as you'll learn from Joe, channels 3 and 4 are identical – hence nine different gain structures, as opposed to 12.

JVM410HJS SPECIFICATIONS

Power (RMS)	100W
Valves	5x ECC83 + 4x EL34
Main Guitar - Input Impedance	1MΩ
Emulated Output - Level	+4dBu
FX Send Level - selectable	-10dBV
Weight	22kg
Size (mm) W, H, D	750 x 310 x 215

THE BASICS

WARNING: Before going any further, make sure your amplifier is compatible with your electrical supply. If you have any doubt, please get help from a qualified technician - your Marshall dealer can help you in this respect.

The correct value of mains fuse is specified on the rear panel of the amplifier. NEVER attempt to bypass the fuse or fit one of the incorrect value.

Note: Please ensure the amplifier is switched off and unplugged from the mains electricity supply whenever it is moved!

Getting Started & Powering Up
1. Make sure that the speakers/cabinet(s) are connected to the correct impedance LOUDSPEAKER jack(s) on the rear panel (14). See page 10 for specifics regarding impedance matching. If you're using an extension cabinet make sure it's powerful enough to handle a 100 Watt amp and also that you're using a proper speaker cable. Never use a screened (shielded) guitar cable for this purpose

WARNING!
1. Failure to do any of the above will damage your amplifier.

2. NEVER use your amp without a (speaker) load attached when the Standby Switch is ON.

Marshall recommends you always leave a (speaker) load attached to the unit.

2. Ensure that both MASTER VOLUMES on the front panel (6) are set to zero.

3. Connect the footcontroller cable to the footcontroller and then connect to the footcontroller socket on the rear panel of amplifier.

4. Connect the supplied mains (power) lead into the MAINS INPUT on the rear panel first and then into an electrical outlet.

5. Plug your guitar into the INPUT jack socket on the front panel.

6. Turn the front panel POWER switch on. This will glow red then wait for a couple of minutes.

7. After waiting a couple of minutes, engage the STANDBY switch. Leaving the amp on 'Standby' for a period allows the valves to come up to their correct operating temperature. In order to prolong valve life, the STANDBY switch should also be used to mute the amplifier during breaks in a performance.

CHANNEL OVERVIEW

The JVM's front panel is divided into 2 main sections: Channels and Master. Each of its 4 channels has 3 modes which are distinguished by a different coloured light (green, orange or red) appearing in the respective MODE switch; the pre-amplifier's gain structure is uniquely reconfigured for each and every mode. Joe was intimately involved in these 12 voicings and worked closely with designer, Santiago Alvarez, for many months perfecting each and every one. Here's a description of all twelve from Joe himself:

CLEAN CHANNEL

CLEAN GREEN MODE: *This is the clean channel of the 30th Anniversary 6100 head – my favourite clean tone of all time – but with more tonal flexibility than the original has to offer. For shimmering clean tones it's great and if you put a little compressor pedal in-front of it, it's beautiful. You can really feel the guitar and that's the thing about amps – a lot of it has to do with what you're putting into it. So the guy who's got the vintage Tele® will be pulling something different out of those channels that someone who's got a hot-rodded Les Paul®, or someone with a 25.5" scale guitar with coil-tapable humbuckers, a locking tremolo system, basswood body and maple neck and rosewood fretboards, like me. All are catered for with all 12 modes of the JVM410H/JS.*

CLEAN ORANGE MODE: *Here we've allowed for just the slightest step-up in gain, perfect for those vintage tone guys who are plugging into a 1x12", 2x12" or 3x10" cabinet, and are looking for less of an "in your face" Marshall sound and more of an old F**dery sound. Just that little bit of extra gain on the Orange Mode is something that I think goes a long way in achieving that.*

Also, what it does is give you another little "bump" up so if you're using a distortion or overdrive box you've got something that's just a hair of a step above the total clean of the Green Modes. As anyone who plays with boxes knows, that slight amount of gain at the input stage is so important in making a distortion box work or making it sound horrible – so we were very sensitive to that.

CLEAN RED MODE: *This just steps the gain up another level. It sounds great and is just a good jangly, slightly broken-up tone. Very useful.*

So, on the Clean channel you can go from totally clean to a little bit of break-up and then a little more. Furthermore, you can step through these three modes and it's seamless. There is a slight volume bump from Orange to Red that we've put in there to compensate for the increased compression you get when you add gain, which a lot of amps don't address. I was very keen on being able to step through all the modes during the course of the same song – it was very important to me for that to be a feature.

In keeping with the classic clean amps of yesteryear, all three modes of this channel feature what is known as a pre-gain tone stack (i.e. the tone network lies before the channel's main gain stage). The reverse (i.e. the tone network being after the main gain stage) is typical of most Marshalls and, as a result, the Clean channel's tone controls work in a slightly different way than you might expect. In addition to controlling the tone of the channel they also affect how it reacts in terms of gain, allowing you to shape how the signal distorts.

For example, turning up the Middle control on higher Gain settings will focus the distortion there, making your sound 'sing' in a traditional blues/rock way. Also, because of the channels' 'tone then gain' topology, when a lot of gain is dialled in (especially in the case of the RED mode), it may appear that its tone controls aren't doing as much as you'd expect or sound over distorted. This is because the signal is being distorted after the tone stage, minimising the effectiveness of the Bass, Middle and Treble controls.

CRUNCH CHANNEL

Tone Note: At this point the JVM reverts to the more typical Marshall preamp circuit characteristic of 'gain then tone'. This is also true of the OD1 and OD2 channels.

I love this channel because, to me, it's as if a very important period of Marshall History is sitting there. It also represents three of my all-time favourite amps that I've used to record all the time. I'm not going to go too crazy trying to over-describe these because anyone who knows and loves Marshall will know the classic amps and sounds upon which they're based...

GREEN MODE: *Inspired by a Master Volume, JMP.*

ORANGE MODE: *Based on a JCM800 2203 which, like the JMP, is such a standard in rock music.*

RED MODE: *That telling, modded JCM800 sound that so defined the '80s era, and is still a "go to sound" for any rock band.*

This channel is so useful. For me to be able to make two albums using this channel – a solo record and "Chickenfoot III" – and to tour, using all three modes during the show is a true testament to just how good the JVM410H/JS's Crunch channel is and how many different tones it can give you.

OD1 & OD2 CHANNELS

It's a crazy idea I know, but these two channels are identical. Generally, logic and intuition would tell you that the rational thing to do if you've got four channels is to make them all different. That said, I've realized, particularly from the experience of playing live, that once you get your tone dialed-in, you wish that you could also get it a little bit louder and with a slightly different EQ once you get it louder. I've found this to be the case more often than not, and no-one wants to walk around with two heads if they don't have to – they'd much rather have one head with the sounds in it. Hence the reason for OD1 and OD2 being the same.

So working with Santiago, we made the two channels essentially the same as OD1 on the original JVM410H but then, at the click of a programmable button – the added Mid-Shift – you can make either one, or both of them be identical to the original JVM OD2 channel too, in terms of the EQ curve. So on the JVM410H/JS you can dial in that big, full, organic "Get Your Buzz On" CF guitar tone. Or, you can activate that switch and there's a bit of a scoop which I found while still being a really fat tone, makes more room for Sammy's vocal in the overall shape of the sounds that make up Chickenfoot. But then, by the same token, I find that on my solo work that space needs to be filled by my guitar so I need that extra midrange to do so properly.

I've now got the ability to have both those sounds and as the gain structures are identical and the way two channels behave are also the same, you can successfully use the channels back to back.

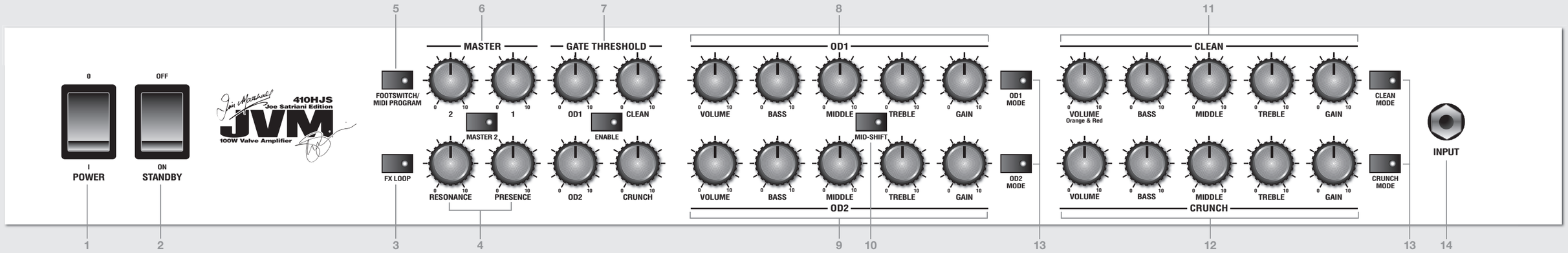
GREEN MODE: *A lot of Gain*

ORANGE MODE: *Even more Gain*

RED MODE: *None more Gain ©Nigel Tufnel!*

In conclusion: I don't want to say that "I'm as happy as a peach" because that's a horrible analogy! Let's just say that I'm spoiled for choice because there are just so many options for how wild you want your guitar to sound within the 12 Modes of the JVM410H/JS. I love it, I really do.

FRONT PANEL OPERATION



1. MAINS (POWER) SWITCH)
This is the On/Off switch for the mains electric power to the amplifier.

2. STANDBY SWITCH & SILENT RECORDING
The STANDBY Switch is used in conjunction with the POWER Switch to 'warm up' the amplifier before use and to prolong the life of the output valves.

When the amplifier is in standby mode the whole preamplifier section continues running at its nominal voltages whilst the power amplifier remains in a standby status. This allows the amplifier to be used for silent recording or preamplification purposes.

Only when the STANDBY is off can the amplifier be used without a load. Always ensure a load is connected when leaving the silent recording mode, i.e. when switching the STANDBY switch ON.

3. FX LOOP
Pressing FX LOOP switches the FX loop ON and OFF in the current channel. This is a programmable FX loop which features a Return Level control on the rear panel and it is located after the pre-amp and the Noise Gate. Pressing the FX Loop switch engages this FX loop. Please refer to the Serial Loop description later on in the handbook for its operation.

MASTER SECTION
4. PRESENCE, RESONANCE
These controls are power amplifier controls and only have effect when playing through a speaker (not in silent recording). They affect how the power amplifier reacts to the connected speakers and how much control the amplifier has over them.

Increasing the RESONANCE control emphasises the natural speaker resonance for an improved bass response. In the same way, increasing the PRESENCE control emphasises the speaker's high frequencies which will be heard as an improved high frequency response which adds presence to the sound.

Presence and Resonance constitute a powerful power amplifier equaliser, allowing responses from a '^' shape when they are fully off, which is felt as a mid boost, to a 'v' shape when they are turned clockwise, which is felt as a scooped sound. Again, the effectiveness of these controls is highly dependant on the kind of connected speakers. Care has to be taken to avoid over excursion of the speaker cones in high resonance settings.

5. FOOTCONTROLLER / MIDI PROGRAM
This switch has a dual function:

Pressing it once we enter the FOOTCONTROLLER PROGRAM mode. It is indicated by a continuous red light.

Pressing it twice we enter the MIDI PROGRAM mode. It is indicated by a blinking red light.

6. MASTER 1 / MASTER 2
These are the master volume controls of the amplifier. They can be assigned individually to each of the modes as you wish and their setting will be remembered in each of the modes. They are switched using the MASTER 2 button to switch between MASTER 1 and MASTER 2.

7. GATE THRESHOLD CONTROL
Pressing ENABLE switches the noise-gate ON and OFF in the current channel. Alongside the GATE switch each channel has its own Gate control allowing individual level settings of the effect.

8. OD1 CHANNEL
See page 6 and 7 for full explanation.

9. OD2 CHANNEL
See page 6 and 7 for full explanation.

10. MID-SHIFT SWITCH
This activates the Mid-Shift which only works on the OD1 and OD2 channel modes. This switch shifts the mids lower and produces a slight "scoop." The mid shift is indicated by a blinking light in the footcontroller display.

11. CLEAN CHANNEL
See page 6 and 7 for full explanation.

12. CRUNCH CHANNEL
See page 6 and 7 for full explanation.

13. MODE SWITCHES
Pressing a MODE button has two functions:

When a mode button is used to change the amplifier channel, the last used mode of the selected channel is selected.

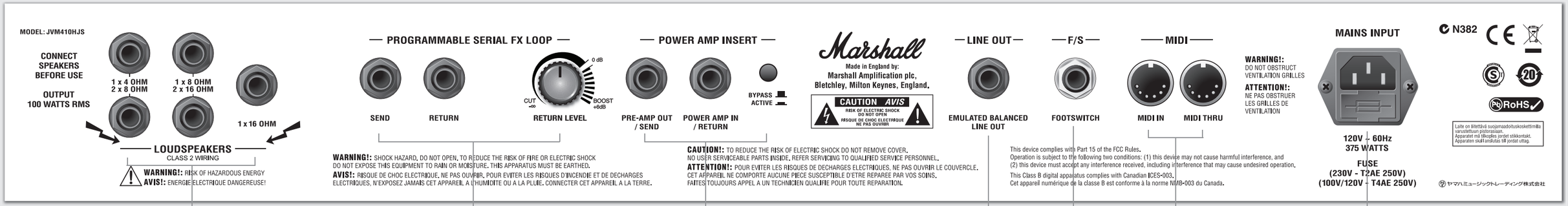
When pressing the same mode button it cycles the modes: GREEN > ORANGE > RED > GREEN...

Each mode remembers the FX, Gate and Master settings - plus, in the case of the OD1 and OD2 channel modes, it also remembers if the Mid-Shift is activated or not.

Example: You are in OD1 ORANGE with FX + GATE and you press CLEAN. The amp switches to the last Clean mode you had (let's assume it was CLEAN GREEN with MASTER 2). If you press the OD1 switch you go back to OD1 ORANGE with FX + GATE. This allows bouncing between channels without losing the settings. If you now press OD1 again, you go to OD1 RED with whatever FX, MASTER, GATE and MID-SHIFT settings you had last time you were in this mode.

14. INPUT JACK SOCKET
You must always use a screened (shielded) guitar cable and never use an unscreened (unshielded) speaker cable. Also, this cable should be one of good quality. If you are in any doubt regarding this, your Marshall dealer will be more than happy to help and advise you.

REAR PANEL OPERATION


MODEL: JVM410HJS
CONNECT SPEAKERS BEFORE USE
OUTPUT 100 WATTS RMS
1 x 4 OHM 2 x 8 OHM
1 x 8 OHM 2 x 16 OHM
1 x 16 OHM
LOUDSPEAKERS
CLASS 2 WIRING
WARNING!: RISK OF HAZARDOUS ENERGY
AVIS!: ENERGIE ELECTRIQUE DANGEREUSE!
PROGRAMMABLE SERIAL FX LOOP
SEND
RETURN
CUT
BOOST
0 dB
+6dB
RETURN LEVEL
POWER AMP INSERT
PRE-AMP OUT / SEND
POWER AMP IN / RETURN
BYPASS
ACTIVE
Marshall
Made in England by:
Marshall Amplification plc,
Bletchley, Milton Keynes, England.
CAUTION AVIS
RISK OF ELECTRIC SHOCK DO NOT OPEN
RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR
LINE OUT
EMULATED BALANCED LINE OUT
F/S
FOOTSWITCH
MIDI
MIDI IN
MIDI THRU
WARNING!: DO NOT OBSTRUCT VENTILATION GRILLES
ATTENTION!: NE PAS OBSTRUER LES GRILLES DE VENTILATION
MAINS INPUT
120V ~ 60Hz
375 WATTS
FUSE
(230V - T2AE 250V)
(100V/120V - T4AE 250V)
N382
RoHS
WARNING!: SHOCK HAZARD. DO NOT OPEN. TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE. THIS APPARATUS MUST BE EARTHED.
AVIS!: RISQUE DE CHOC ELECTRIQUE, NE PAS OUVRIR. POUR EVITER LES RISQUES D'INCENDIE ET DE DECHARGES ELECTRIQUES, N'EXPOSEZ JAMAIS CET APPAREIL A L'HUMIDITE OU A LA PLUIE. CONNECTER CET APPAREIL A LA TERRE.
CAUTION!: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
ATTENTION!: POUR EVITER LES RISQUES DE DECHARGES ELECTRIQUES, NE PAS OUVRIR LE COUVERCLE. CET APPAREIL NE COMPORTE AUCUNE PIECE SUSCEPTIBLE D'ETRE REPAREE PAR VOS SOINS. FAITES TOUJOURS APPEL A UN TECHNICIEN QUALIFIE POUR TOUTE REPARATION.
This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan.
Apparatet må tilkoples jordet stikkontakt.
Apparaten skall anslutas till jordat uttag.
ヤマハミュージックトレーディング株式会社
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14. SPEAKER OUTPUTS
There are 5 speaker outputs available on the rear panel. They are labelled according to the intended impedances:

16Ω: connect any 16 ohms guitar cabinet to this jack.

8Ω: connect a single 8 ohms guitar cabinet or two 16 ohms guitar cabinets.

4Ω: connect a single 4 ohms guitar cabinet or two 8 ohms guitar cabinets.

WARNING, although the JVM amplifier has 5 speaker outputs never attempt to connect more speakers than rated. The safe combinations are 1x16 Ohm, 1x8 Ohm, 1x4 Ohm, 2x16 Ohm or 2x8 Ohm. Any other speaker configuration may stress the power amplifier section and in extreme cases may lead to valve and/or output transformer failure.

15. PROGRAMMABLE SERIAL FX LOOP
The JVM is equipped with a Programmable Serial FX loop. Connect your external FX gear input to the JVM SEND jack, and the FX output to the JVM RETURN jack. As described previously, this effects loop can be bypassed from the front panel and the amount of effect can be dialed in with the RETURN LEVEL control.

The programmable serial FX loop features a return level control. It allows the user to balance the returning signal level from the effect either attenuating it or boosting it up to +6dB.

In a usual setup the return level would be set to allow engaging effects without a volume variation using the Return Level control to compensate eventual volume variations.

On the other hand it can also be used to completely mute the amplifier or as an extra solo/volume boost.

16. POWER AMP INSERT
This is a passive loop connected right before the master controls. It is a line level loop so it is recommended to only use high headroom devices to avoid signal degradation. Plugging only into the return jack allows the use of the JVM's power section overriding the preamp.

Master controls and the emulated line out are located after the serial loop so it is still possible to take advantage of those features when using an external preamplifier. The loop can be taken off the circuit by pressing the BYPASS switch, but as opposed to the Series FX loop this switch cannot be programmed.

17. EMULATED LINE OUT
The pre master volume signal, processed through a 4x12 speaker cabinet emulator and electronically balanced is made available at this connector.

18. FOOTCONTROLLER
Connect the supplied footcontroller using any standard 1/4" jack mono lead. Using any other type of footcontroller rather than the supplied will have no effect and will be ignored by the amplifier.

19. MIDI IN / THROUGH
Connect any external MIDI gear to the MIDI In DIN socket. A copy of the signal in this connector will be available on the MIDI thru socket to allow daisy chaining of MIDI equipment. Note that the JVM only accepts incoming data and it is not able to send any MIDI commands.

HINTS & TIPS
Factory Reset
This will erase all the MIDI presets and set MIDI reception channel to #1. Please note that once the memory is erased it cannot be recovered.

Switch the amplifier off (power switch off, not standby switch).

Press and hold the CLEAN MODE switch.

Switch the amplifer on while holding down the CLEAN MODE switch (power switch on, not standby switch).

The 4 channel LEDs will glow orange.

Release the CLEAN MODE switch.

To confirm the factory reset press the CRUNCH MODE switch.

If you want to abort, press any other mode switch.

20. MAINS INPUT & FUSE
Your amp is provided with a detachable mains (power) lead, which is connected here. The specific mains input voltage rating that your amplifier has been built for is indicated on the back panel.

ENGLISH

FOOTCONTROLLER PROGRAM AND USE

The JVM range features a fully configurable footcontroller. Connection to the amplifier requires a standard mono 1/4" jack to jack cable. Any guitar lead will work and practically there should be no limit in its length.

When the front panel FOOTCONTROLLER / MIDI PROGRAM switch is off, the footcontroller operates in safe mode and executes the commands the moment the switch is pressed down.

If you enter the FOOTCONTROLLER PROGRAM mode (LED red) you will be able to program the footcontroller but nevertheless the footcontroller and the amplifier will remain fully operational with the only difference that the commands will be executed when releasing the footcontroller's, as opposed to the normal mode.

Each of the individual footcontroller's has 2 modes of operation: **preset store** and **switch store**.

In **preset store** mode, any of the footcontroller's can be configured to store the current amplifier status. The current channel, master, FX and noise gate status will be stored and recalled when the respective footcontroller is pressed.
To store the current status simply:

Set the amplifier to FOOTCONTROLLER PROGRAM mode (red light ON).

Press and hold the desired switch for about 3 seconds.

The FX footcontroller LED will flicker a couple of times indicating that the preset has been stored.

In **switch store** mode, any of the footcontroller's can be configured to replicate the front panel switches and the amplifier will react exactly in the same way as when you operate them on the front panel.

All the front panel switches can be mapped to any of the footcontrolleres without any limitation. The only exception is the FOOTCONTROLLER / MIDI PROGRAM key which cannot be assigned to the footcontroller.

To assign any of the front panel keys (except FOOTCONTROLLER / MIDI PROGRAM) to any of the footcontrolleres simply:

Set the amplifier to FOOTCONTROLLER PROGRAM mode (red light ON).

Press and hold the desired footcontroller.

While holding the footcontroller down, in less than 3 seconds, press the front panel switch you want to map.

The FX footcontroller LED will flicker a couple of times indicating that the switch has been mapped.

From now on the selected footcontroller will act exactly in the same way as if you press the related front panel switch.

Keys and presets can be assigned as wished without limitation and in any order (again, except the FOOTCONTROLLER / MIDI PROGRAM key). The footcontroller configuration is stored in the footcontroller itself, not in the amplifier. Resetting the amplifier will not affect the footcontroller configuration as well.

The footcontroller can be hot-swapped and synchronises itself with the amplifier after connection. However it is recommended to connect the footcontroller lead to the footcontroller side first and then connect it to the amplifier.

MIDI operation
Pressing the FOOTCONTROLLER / MIDI PROGRAM switch twice puts the amplifier in MIDI waiting mode, the LED will flash until a valid MIDI program change command is received.

On reception of a MIDI program change command the amplifier stores the current status (Channel + FX + Noise Gate + Master Settings) in the MIDI program number received. It is possible to store up to 128 different MIDI presets.

To exit this status without waiting for incoming MIDI data press the FOOTCONTROLLER / MIDI PROGRAM switch again.

Note about MIDI channels: By default the amplifier is configured to listen to MIDI channel #1 but it can be changed to listen to any of the 16 MIDI channels as follows:

Switch the amplifier off (Power switch, not Standby).

Press and hold the FOOTCONTROLLER / MIDI PROGRAM switch.

Switch the amplifier on (Power switch).

Release the FOOTCONTROLLER / MIDI PROGRAM switch, the LED will start to flash.

Send ANY MIDI command using your MIDI pedalboard or any other MIDI equipment.

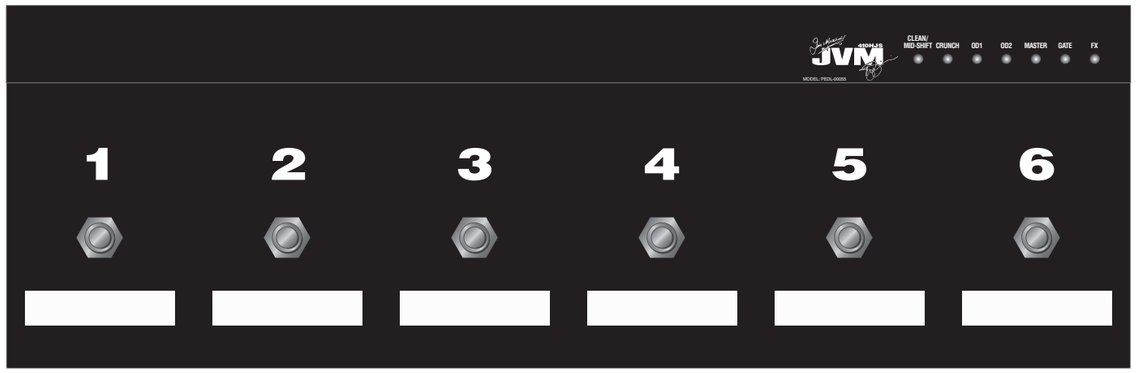
The amplifier will detect which channel came in and configure itself to listen to that MIDI channel only. From now on any MIDI preset you had previously stored will be activated only on the new channel regardless of what channel you used before, this allows a fast reconfiguration should there be a MIDI conflict with any other outboard equipment.

If you want to exit the MIDI channel selection without any action press the FOOTCONTROLLER / MIDI PROGRAM switch while waiting for MIDI data.

Footcontroller Reset:
It is possible to reset the footcontroller to the factory default status. This is achieved as follows:

Unplug the footcontroller at any of the cable sides.

Press and hold the switch #6 (right switch).
Plug in the footcontroller cord.



Release the switch and the FX led will start blinking.

If you want to erase the footcontroller memory press the switch #5. To keep the memory press any of the #1 to #4 switches. Please note that once the memory is erased it cannot be recovered.

Release the switch and the footcontroller will synchronise with the amplifier.

The factory default is as follows:
FSW #1: Clean/Mid Shift
FSW #2: Crunch Mode
FSW #3: OD1 Mode
FSW #4: OD2 Mode
FSW #5: Master
FSW #6: Gate

Hints
Hint 1: It is possible to use different modes in the same channel with different volumes to avoid imbalance which can be especially interesting in the Clean channel. To do this simply create 2 presets in the footcontroller assigning MASTER 1 or MASTER 2 to any of the modes.

If you do not connect any effect to the programmable SERIAL FX LOOP the RETURN LEVEL control can be used to act like an extra volume control in any of the channels.

Hint 2: To have a tuner output muting the amplifier, connect the tuner to the FX send and select the Clean channel. Turn the RETURN LEVEL control to CUT and switch the FX loop on. Store this preset as described before and label it for example as 'tuner'. Obviously in this configuration it is not possible to connect any other effect to the loop.

Hint 3: To use a different preamplifier and combine it with the JVM channels, connect the external preamplifier output to the Programmable Serial loop return and turn the RETURN LEVEL to desired external preamp level. Connect the external preamp input with a splitter to the amplifiers input (it might be necessary to use an active splitter to keep a high impedance and/or an isolated one to avoid ground loops). Switching the effects loop ON and OFF will alternate between the external preamp and the JVM preamp.

Hint 4: Notes about using 2 heads simultaneously. The suggested procedure is connect the 'master' head PREAMP OUT to the 'slave' head POWER AMP IN and switch the POWER AMP INSERT to ACTIVE in the 'slave' amplifier.

In order to track the master volume settings in both heads (as the master volume circuitry is wired after the loop) it is suggested to use MIDI control with both amplifiers programmed in the same way. Connect the MIDI IN of one of the amplifiers to the MIDI THROUGH of the other and the pedalboard or MIDI equipment to the remaining MIDI IN.

JVM MIDI IMPLEMENTATION

FUNCTION	VALUE	PARAMETER
Control Change		
16	0	Clean Green
	1	Clean Orange
	2	Clean Red
	3-127	Scroll CLEAN modes
17	0	Crunch Green
	1	Crunch Orange
	2	Crunch Red
	3-127	Scroll CRUNCH modes
18	0	OD1 Green
	1	OD1 Orange
	2	OD1 Red
	3-127	Scroll OD1 modes
19	0	OD2 Green
	1	OD2 Orange
	2	OD2 Red
	3-127	Scroll OD2 modes
12	0	GATE OFF
	1	GATE ON
	2-127	Toggle Gate
13	0	FX OFF
	1	FX ON
	2-127	Toggle FX
14	0	Master OFF
	1	Master ON
	2-127	Toggle Master
15	0	Mid_Shift OFF
	1	Mid_Shift ON
	2-127	Toggle Mid_Shift
Program Change	0-127	127=Recall previous preset

*** EUROPE ONLY** CE **- Note:** This equipment has been tested and found to comply with the requirements of the EMC Directive (Environments E1, E2 and E3 EN 55103-1/2) and the Low Voltage Directive in the E.U.

*** EUROPE ONLY - Note:** the average half-cycle r.m.s. inrush current, on initial switch-on, is 5.4 amps
the average half-cycle r.m.s. inrush current after a supply interruption of 5 s is 5.1 amps

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Follow all instructions and heed all warnings
KEEP THESE INSTRUCTIONS!

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Whilst the information contained herein is correct at the time of publication, due to our policy of constant improvement and development, Marshall Amplification plc reserve the right to alter specifications without prior notice.

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